dimensional redundant bit patterns, each of said respective multiplicity of marks having an appearance to human vision resembling a respective character.

3. (amended) The part marking as recited in claim 2, further comprising machine-detectable respective spatial registration indicators placed such that each of said respective multiplicities of machine-detectable marks are combinable by aligning said respective spatial registration indicators such that said respective combined multiplicity of marks remain machine detectable.

5. (amended) The part marking as recited in claim 1, wherein said code is ASCII code.

7.(amended) A part marking comprising a plurality of human-readable characters formed in respective areas containing respective arrays of machine detectable marks, each of said array of machine-detectable marks arranged in accordance with two-dimensional redundant bit patterns, each of said arrays of machine-detectable marks in said respective areas having shapes indicative of said human-readable characters, and each of said two-dimensional redundant bit patterns comprising a repeating pattern of a bit string forming respective machine detectable codes corresponding to said human-readable characters.

8.(amended) The part marking as recited in claim 7, further comprising machine-detectable respective spatial registration indicators formed in said respective areas and placed such that each of said respective arrays of machine-detectable marks are combinable by aligning said respective spatial registration indicators such that said respective combined multiplicity of marks remain machine detectable.

10.(amended) The part marking as recited in claim 7, wherein said codes are ASCII codes.

12.(amended) A system for automatic identification of a part, comprising:

a part comprising a plurality of respective multiplicities of machine-detectable marks arranged in accordance with two-dimensional redundant bit patterns, each of said respective multiplicities of machine–detectable marks having an appearance to human vision resembling a respective character, and said two-dimensional redundant bit patterns comprising a repeating pattern of a bit string forming respective codes corresponding to said respective character;

an imager for imaging an area of said part occupied by said marks to produce electrical signals having characteristics which allow discrimination between electrical signals derived from imaging of marks and electrical signals derived from imaging of areas outside of marks; and

a computer programmed to derive said first and second codes from said electrical signals output by said imager.

13.(amended) The system as recited in claim 12, wherein said computer is programmed to perform the steps of:

digitizing said electrical signals to form respective bit maps, comprising bits corresponding to each of said respective multiplicities of machine-detectable marks;

spatially registering said respective bit maps;

forming a union of said spatially registered respective bit maps; and

detecting bit strings, corresponding to said respective codes, in the composite bit map resulting from the union of said spatially registered respective bit maps.

14. (amended) The system as recited in claim 13, wherein said part further comprises machine-detectable respective spatial registration indicators placed such that each of said respective multiplicities of machine-detectable marks are combinable by aligning said respective spatial registration indicators such that said respective combined multiplicity of marks remain machine detectable

16. (amended) The system as recited in claim 12, wherein said codes are ASCII codes.

17. (amended) A method of marking parts for automatic identification, comprising the steps of forming respective human-readable characters in respective areas on said part by applying respective arrays of machine-detectable marks arranged in two-dimensional redundant bit patterns each of said respective arrays of machine-detectable marks having respective shapes indicative of each of said respective human-readable characters, and said two-dimensional redundant bit patterns comprising a repeating pattern of a respective bit string forming respective codes corresponding to each of said respective human-readable characters.

18. (amended) A method of automatically identifying parts, comprising the following steps:

marking a part with respective human-readable character-shaped arrays of machine-detectable marks;

acquiring an image of said part marking;

digitizing the acquired image to form respective bit maps comprising bits corresponding to each of said respective human-readable character-shaped arrays of machine-detectable marks;

spatially registering said respective bit maps;

forming a union of said respective spatially registered bit maps; and

decoding the composite bit map resulting from the union of each of said respective spatially registered bit maps to identify the part.

19. (amended) A system for automatically identifying parts, comprising:

a part marked with respective human-readable character-shaped arrays of machine-detectable marks;

an imager for acquiring an image of said part marking; and

a computer programmed to perform the following steps:

digitizing the acquired image to form respective bit maps comprising bits corresponding to each of said respective human-readable character-shaped arrays of machine-detectable marks;

spatially registering each of said respective bit maps;

forming a union of said respective spatially registered bit maps; and

decoding the composite bit map resulting from said union of the spatially registered bit maps to identify said part.